

Application No. 10/056,845  
Second Supplemental Amendment dated August 18, 2005

**REMARKS/ARGUMENTS**

**Examiner Interview:**

The undersigned thanks the Examiner for an interview which was granted on August 17, 2005. It is understood that an official summary of this interview is being prepared by the Examiner.

**Amendment to the Claims:**

Claim 1 has been amended herein, and is believed to fully distinguish over the applied art. Because the subject matter of Claim 2 has been incorporated into Claim 1, Claim 2 has been cancelled herein, and Claims 3 and 4 have been amended so as to now depend from Claim 1, rather than the cancelled Claim 2.

**Rejection Under 35 U.S.C. § 102:**

The Examiner has rejected Claim 1-11 under 35 U.S.C. 102 (e) as being anticipated by Bogdan et al, (US Pat. 6,495,487 B1). The Applicants respectfully submit that the Bogdan reference does not anticipate the instant invention.

A rejection under 35 U.S.C. §102 must disclose the identical invention and contain every element recited in the claim in as complete detail as is contained in the claim and arranged as recited in the claim. MPEP §2131 provides:

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference. *Verdegall Bros. v. Union Oil Co. Of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the . . . claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim.

The Applicants respectfully argue that the Bogdan reference does not disclose the identical invention in as complete detail as is contained in Claim 1. Nor does the Bogdan reference disclose every element as set forth in the claim.

Amended Claim 1 recites:

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1. A low-temperature oxidation-reduction catalyst comprising:
  - a noble metal selected from the group consisting of platinum, palladium, gold, silver and rhodium;
  - a mixed-metal oxide layer comprising:
    - a first metal oxide which possesses more than one stable oxidation state including at least tin oxide;
    - a second metal oxide including at least zirconium oxide;
    - a third metal oxide selected from the group consisting of cerium oxide, hafnium oxide, lanthanum oxide, and ruthenium oxide; and
    - said first, second and third metal oxide each being an active catalytic component of said mixed-metal oxide layer.

Support for this amendment to Claim 1 can be found in the originally filed specification in the final line on page 3, and on page 4 lines 6-14.

It is respectfully submitted that the Bogdan reference does not disclose the recited mixed-metal oxide layer comprising at least tin oxide, zirconium oxide and a third metal oxide selected from the group consisting of cerium oxide, hafnium oxide, lanthanum oxide, and ruthenium oxide, and wherein said first, second and third metal oxide each is an active catalytic component of said mixed-metal oxide layer.

Unlike the present invention, the Bogdan catalyst does not use zirconia as an active component. Rather the Bogdan catalyst utilizes zirconia as a refractory inorganic oxide support. The Bogdan reference states:

The refractory support utilized in the present invention usually is a porous, adsorptive, high-surface area support...Included within the scope of the present invention carrier are materials which have traditionally been utilized in dual-function hydrocarbon conversion catalyst such as:

1) refractory inorganic oxides such as alumina, magnesia, titania, zirconia, chromia, zinc oxide, thoria, boria, silica-alumina, silica-magnesia, chromia-alumina, alumina-boria, silica-zirconia, etc.; ...

Preferably the refractory support comprises one or more inorganic oxides, with the preferred refractory inorganic oxide for use in the present invention being alumina. (Bogdan col.4, line 1-17.)

Because the Bogdan reference does not disclose a catalyst comprising tin oxide, zirconium oxide, and a third metal oxide selected from the group consisting of cerium oxide,

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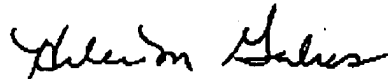
hafnium oxide, lanthanum oxide, and ruthenium oxide; and said first, second and third metal oxide each being an active catalytic component of a mixed-metal oxide layer, it is respectfully contended that the Bogdan reference does not disclose every element as recited in Claim 1, nor does it disclose the identical invention as recited in Claim 1, therefore the Bogdan reference does not anticipate the present invention.

Therefore, based on the above, independent Claim 1 is believed to fully distinguish from the Bogdan reference, and therefore is believed to be in condition for allowance. Since claims 3-11 all depend from independent Claim 1, they too are believed to be in condition for allowance by virtue of this dependency. Therefore, in light of the above, reconsideration and withdrawal of the present rejection is respectfully requested.

### CONCLUSION

It is submitted that the Applicants have submitted new and unique Stabilized Tin-Oxide-Based Oxidation/Reduction Catalysts. In view of the above, it is submitted that Claims 1, 3-11 are in condition for allowance. Therefore, it is requested that a Notice of Allowance be issued at an early date.

Respectfully submitted,



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